Please amend the Application as follows.

IN THE CLAIMS:

The following claim listing replaces all previous claim listings in the application:

1. (Withdrawn) A method comprising:

(a) removing graphite from at least one surface of a metal graphite composite material;

(b) chemically cleaning or plasma etching the surface of the metal graphite composite material;

(c) applying a metal-containing material to the surface of the chemically cleaned or plasma etched metal graphite composite material, and thereby forming an intermediate layer;

(d) applying a metal coating on the intermediate layer, and thereby forming a metal-coated metal graphite composite material.

2. (Withdrawn) The method of Claim 1, wherein the graphite is removed by a technique selected from the group consisting of oxidation techniques, vibratory finishing techniques, plasma stripping techniques, glow discharge techniques, mechanical blasting techniques, lapping techniques, and combinations thereof.

3. (Withdrawn) The method of Claim 1, wherein the composite material formed in step (d) has a surface that is hermetically sealed or corrosion-resistant or both hermetically sealed and corrosion resistant.

4. (Withdrawn) The method of Claim 1, wherein in step (c), the metal-containing material that is applied is a zinc-containing material.

5. (Withdrawn) The method of Claim 4, wherein the zinc-containing material is a zincate.

6. (Withdrawn) The method of Claim 1, wherein the metal coating in step (d) is selected from the group consisting of aluminum, copper, nickel, gold, silver, rhodium, ruthenium, aluminum alloys, copper alloys, nickel alloys, gold alloys, silver alloys, rhodium alloys, ruthenium alloys, and combinations of the foregoing.

7. (Withdrawn) The method of Claim 1, wherein metal graphite composite material has a carbon fiber content ranging from about 30 wt.% to about 40 wt.%.

8. (Withdrawn) The method of Claim 1, wherein the metal graphite composite material is selected from the group consisting of aluminum graphite composite materials, copper graphite composite materials, magnesium graphite materials, aluminum alloy graphite composite materials, copper alloy graphite composite materials, magnesium alloy graphite materials, and combinations thereof.

9. (Withdrawn) The method of Claim 1, wherein in step (a), graphite is removed by subjecting the metal graphite composite material to oxidization by heating the metal graphite composite material to a temperature that is sufficiently high to oxidize the composite material and remove graphite from the composite material.

10. (Withdrawn) The method of Claim 9, wherein the temperature is at least about 250° C.

11. (Withdrawn) The method of Claim 9, wherein the maximum temperature is below the melting temperature of the metal of the metal graphite composite material.

12. (Withdrawn) The method of Claim 1, wherein the metal-containing material applied in step (c) forms a thin film of a zinc-containing material having thickness that is less than about 1 micron.

13. (Withdrawn) The method of Claim 1, wherein the metal-containing material applied in step(c) forms a thin film of a zincate having a thickness ranging from about 1 nanometer to about 1 micron.

14. (Withdrawn) The method of Claim 1, wherein the metal coating is applied by a technique selected from the group consisting of plating techniques, immersion coating techniques, physical vapor deposition techniques, chemical vapor deposition techniques, ion vapor deposition techniques, and combinations thereof.

15. (Withdrawn) The method of Claim 1, wherein the metal coating is applied to a zinc-containing intermediate layer and the metal coating has a thickness that is less than about 100 microns.

16. (Withdrawn) The method of Claim 1, wherein the metal coating applied on a zinc-containing film and the metal coating is at least 1 about micron, or from about 1 micron to about 75 microns.

17. (Withdrawn) The method of Claim 1, wherein the method further comprises smoothening a surface of the metal graphite composite material before the metal graphite composite material is subjected to chemical cleaning or etching.

18. (Withdrawn) The method of Claim 17, wherein the surface is smoothened by a technique selected from the group consisting of lapping techniques, peening techniques, and combinations thereof.

19. (Original) A metal-coated composite material comprising:

(a) a metal graphite composite substrate having at least one surface that is substantially free of graphite;

(b) a metal-containing intermediate layer located on a surface of the substrate; and

(c) a metal coating on the intermediate layer.

20. (Original) The composite material of Claim 19, wherein the at least one surface of the composite material is hermetically sealed.

21. (Original) The composite material of Claim 19, wherein the at least one surface of the composite material is corrosion resistant.

22. (Original) The composite material of Claim 19, wherein the at least one surface of the composite material is both hermetically sealed and corrosion resistant.

23. (Canceled)

24. (Currently amended) The composite material of Claim 19, wherein the composite material is selected from the group consisting of aluminum graphite composite materials, aluminum alloy graphite composite materials, and combinations of the foregoing.

25. (Currently amended) The composite material of Claim 19, wherein the material has a carbon fiber content ranging from about 15 wt.% to about 60 wt. %.

26. (Original) The composite material of Claim 19, wherein the metal-containing intermediate layer comprises a zinc-containing material.

27. (Original) The composite material of Claim 19, wherein the metal-containing intermediate layer comprises a zincate.

28. (Currently amended) A metal-coated metal graphite composite material comprising:

(a) a metal graphite composite substrate having at least one surface that is substantially free of graphite;

(b) a metal-containing intermediate layer located on a surface of the substrate; and

(c) a metal coating on the intermediate layer,

wherein the composite material is made by a method comprising:

(1) removing graphite from at least one surface of a metal graphite composite material by oxidizing the metal graphite composite material at a temperature of at least 250°C, or by use of vibratory finishing techniques, plasma stripping techniques, glow discharge techniques, mechanical blasting techniques, lapping techniques, or combinations of any of these;

(2) chemically cleaning or plasma etching the at least one surface of the metal graphite composite material;

(3) applying a metal-containing material to the surface of the chemically cleaned or plasma etched metal graphite composite material, and thereby forming an intermediate layer; and

(4) applying a metal coating on the intermediate layer, and thereby forming the metal-coated metal graphite composite material.

29. (Original) The composite material of Claim 28, wherein the metal-coated metal graphite composite material formed in step (4) has a surface that is hermetically sealed or corrosion-resistant or both hermetically sealed and corrosion resistant.

30. (New) The composite material of Claim 28, wherein graphite is removed from at least one surface of the metal graphite composite material by plasma stripping techniques.